

## Evaluating the Impact of Underdiagnosis for Children Receiving Special Educational Needs (SEN) support for Autism in 2016-2022: an analysis of Education and Child Health Insights from Linked Data (ECHILD)

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### Objectives

Autistic Spectrum Disorder (ASD) is a lifelong developmental disability affecting around 3% of children in their communication and interaction with the world. To address the clinical crisis for assessing ASD among children, this project evaluates the extent of underdiagnosis, and the associated discrepancies in receiving Special Educational Needs (SEN) support.

### Methods

I will construct a cohort of children without ASD diagnosis in 2016 and follow them up until 2022. The diagnosis of ASD among children in the health services are derived from a range of variables in ECHILD. Utilising the time-to-event framework and controlling for potential clustering effects along time, pupil, and class/school, I will treat the age of diagnosis as the time indicator and ASD diagnosis as the event, and specify a mixed-effect cox survival model to estimate how the diagnosis is predicted by a wide range of indicators, including characteristics of individuals, class/school, socioeconomic conditions and geography.

### Results

The results will show whether obtaining a diagnosis from a clinical setting offers additional advantages to children identified solely in an educational setting with ASD, who may require extra support. This exploration will enhance our understanding of which children would benefit most from clinical diagnoses. The insights gained could be applied to prioritising children on waiting lists, introducing fair and programmable practices into health systems. The benefit is that the needs of children could be better matched by the services that support them. The project's results can therefore contribute to promoting equal care for children, particularly those from disadvantaged backgrounds who may face exacerbated disadvantages if their ASD is not identified and addressed.

### Conclusion

This project evaluates the impact of clinical underdiagnosis of ASD upon inequalities in health and education outcomes for children in England. Potential impacts include creating tangible education and health benefits, addressing the crisis of service systems, and enabling health and education services to identify opportunities to intervene to mitigate inequalities.



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